DOCUMENT RESUME

ED 434 213 CE 079 159

AUTHOR	Kerka, Sandra
TITLE	Consumer Education for the Information Age. Practice Application Brief No. 4.
INSTITUTION	ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, OH.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	1999-00-00
NOTE	4p.
CONTRACT	ED-99-CO-0013
AVAILABLE FROM	For full text: <http://ericacve.org/fulltext.asp>.
PUB TYPE	ERIC Publications (071)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Computer Literacy; *Consumer Education; Critical Thinking; Decision Making; *Educational Needs; *Educational Resources; *Information Literacy; Information Skills; Literacy Education; Problem Solving; Relevance (Education); Role of Education; Teaching Methods; Thinking Skills; World Wide Web
IDENTIFIERS	*Critical Literacy; *Information Age

ABSTRACT

Now that the Internet has increased the potential for deception and misinformation among larger numbers of people, consumer education has a new role to play in helping people develop the skills needed to deal with the challenges of the Information Age. In the current information environment, consumers need the blend of skills and abilities that has been variously referred to as information literacy, critical literacy, media literacy, or digital literacy. This form of literacy combines the skills of locating, selecting, organizing, and synthesizing information with critical analysis, interpretation, and application of the results to solve problems and make decisions. Several approaches to teaching the World Wide Web (WWW) have been proposed, including an eight-step modular approach that includes the following: (1) basic concepts; (2) using the WWW for research; (3) basic WWW searching; (4) comparing WWW subject directories; (5) comparing WWW search engines; (6) advanced WWW search techniques; (7) evaluating WWW resources; and (8) synthesizing WWW research strategies. Other resources available to help consumer educators teach the critical literacy skills needed to navigate the WWW safely and successfully include a set of lesson plans and activities that are especially suited to adults and detailed checklists for teaching information source evaluation. (Contains 26 references.) (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 434 213

Consumer Education for the Information Age
Practice Application Brief No. 4

Sandra Kerka

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ERIC Clearinghouse on Adult, Career, and Vocational Education
Center on Education and Training for Employment
College of Education
The Ohio State University
1900 Kenny Road
Columbus, OH 43210-1090

CE079159

BEST COPY AVAILABLE

ERIC Clearinghouse on Adult, Career, and Vocational Education

by Sandra Kerka

PRACTICE APPLICATION 1999
BRIEF NO. 4

Consumer Education for the Information Age

Deception and misinformation may be as old as humankind, but the Internet is increasing the potential for harm to larger numbers of people. Consumer education has a new role to play in helping people develop the skills needed to deal with the challenges of the Information Age. This Brief describes some of these challenges and presents teaching and learning strategies to prepare people to be savvy cyberconsumers.

The Willing Suspension of Disbelief

Some of the most attractive features of the Internet—speed, lack of restriction, ease of manipulation of data—make it relatively easy to find masses of information. Unfortunately, these same features help those who are so inclined to violate privacy, commit fraud, and proliferate misinformation. The numbers of people accessing the Internet increase every day. Two of the most common reasons are to purchase goods and to search for health, financial, and legal information and advice. In 1998, online sales nearly doubled compared to 1997, from $5 billion to $9 billion (Dorsey 1999); 17.5 million Internet users search for health-related subjects, but a 1997 survey found that 41% reached health sites via search engines that have no quality filters (McKenzie 1999). At the same time, Internet fraud complaints have increased 600% since 1997, most commonly about auctions, general sales, business opportunities, credit cards, and employment (National Fraud Information Center 1999b). On one of its regular 'Net sweeps, the Federal Trade Commission found 800 sites making fraudulent health claims (Larkin 1999).

The transparency of the interface, the ease of access, and the aesthetic attractions of the Web can lull even normally skeptical people into letting their guard down, and less critical people are even more at risk. Researchers have found a correlation between enjoyment in using the Internet and belief in the trustworthiness of information. "It was generally assumed that whatever was found on the WWW was indeed fact" (Morrison, Kim, and Kydd 1998, p. 267). "Students are not innately skeptical of information. They are inclined to believe something if it has the right packaging" (Marcovitz 1997, p. 29). "People seem highly vulnerable to the manipulation of superficial presentation characteristics" (Fitzgerald 1997, p. 40). Lacking time and overwhelmed by quantity, people do not evaluate all incoming information (ibid.). Ronau, Ryan, and Stroble (1998) found that 50% of students believed that Web information is accurate, whereas only 35% felt the same about newspapers and television.

More people are becoming technically adept at the mechanics of Internet use. Children and teenagers especially feel comfort and familiarity with accessing electronic information sources (Labaree 1998; Watson 1998). However, many tend to believe such sources are more current *because* they are online. Because electronic sources are so easy to acquire, print sources are frequently ignored (Labaree 1998).

Much online information is not filtered, organized, or rated by such traditional gatekeepers as publishers, indexers, and librarians. "Excellent resources reside alongside the most dubious. The Internet epitomizes the concept of 'Caveat lector: Let the reader beware'" (Kirk 1999). Search engines and websites that review and rate other websites are often promoted as good places to start an Internet search. However, consumers need to evaluate not only the results of a search but also the tools and guides they use for searching (Tillman 1998). Search engine ranking systems differ, and few people can or will take time to learn them (Cooke, McNab, and Anagnostelis 1996). Some search engines use unspecified or vague rating criteria and anonymous evaluators (Sorapure, Inglesby, and Yatchisin 1998). Selection criteria may depend only on accessibility of a site; relevance may be determined by mere repetition of terms (Kirk 1999). Some search engines "sell" top space to advertisers. Even respected search engines such as Northern Lights and AltaVista index only a fraction of all websites (Williams 1998) Thus, search results represent only a subset of all information on the Web, let alone of the "known body of knowledge and information" (Schwartz 1997, p. 263), an imbalance that is itself a type of bias.

Developing Critically Literate Consumers

In this information environment, consumers need the blend of skills and abilities that goes by several names: information literacy, critical literacy, media literacy, or digital literacy (Kellner 1998; Sorapure et al. 1998). This form of literacy combines the skills of locating, selecting, organizing, and synthesizing information with critical analysis, interpretation, and application of the results to solve problems and make decisions. These skills and abilities have long been a part of consumer education, defined as development of the knowledge and skills needed to manage resources and make decisions (National Institute for Consumer Education 1996).

Just as many Internet frauds are the same old scams practiced in a new playing field (ibid.), the time-tested skills of critical consumer literacy still apply in the Information Age. However, they need to be recast and broadened for the new context. In the virtual world of the Web, multimedia affect the message: images and graphic design can be manipulated to achieve developers' aims, and the associative logic of hypertext may illustrate how ideas connect but they can also lead users to false connections and disguise hidden agendas (Sorapure et al. 1998).

Beyond the mechanics of searching the Internet and downloading information, what people of all ages from kindergarten to adult need is the ability to evaluate the quality of information and information sources. Alexander, Powell, and Tate (1999) recognize the importance of evaluation in their "teaching pyramid" for the World Wide Web. This eight-step modular approach to teaching the Web includes (1) basic concepts; (2) using the web for research; (3) basic web searching; (4) comparing web subject directories; (5) comparing web search engines; (6) advanced web search techniques; (7) evaluating web resources; and (8) synthesizing web research strategies. The evaluation module contains checklists for assessing the content of specific types of websites: advocacy, business/marketing, news, information, and personal. Many other types of guidelines and checklists are available for educators to use in helping learners critically approach information resources for consumer decision making. A synthesis of these guidelines is provided here.

1. **Who.** Is the author, site owner, publisher identified? Point of view or bias? Contact information (e-mail, postal addresses) provided? Lack of credibility may be indicated by anonymity, no quality control. (Hammett 1999; Harris 1997; Kirk 1999)
2. **What.** Does the content match the purpose? Are the criteria for inclusion explicit? Is the content accurate and verifiable? Is it reasonable (fair, balanced, objective)? Does it display external consistency (i.e., how does it compare with similar sources)? Does the information have integrity—reference to reputable sources, respect for copyright, does it overemphasize digital images?

(Hammett 1999; Harris 1997; Kirk 1999; Sorapure et al. 1998; Tillman 1998)

3. **When.** If applicable, is it clear when the information was posted and updated? (Ronau et al. 1998)
4. **Where.** Is the site robust and stable? Are its links valid? Is it indexed in standard sources? (Ronau et al. 1998; Williams 1998)
5. **How.** Do the links point to external as well as internal webpages? Are the links to reliable sites? Is the site easy to download and does it use appropriate media, layout, navigation? (Fitzgerald 1997; Ronau et al. 1998; Sorapure et al. 1998; Williams 1998)
6. **Why.** What is the purpose of the site—commercial/marketing? information? advocacy? a political agenda? What is the intended audience? Are the purpose and audience appropriate for your requirements? If there are guestbooks, feedback forms, or other means of collecting data from users, is it clear why they are collecting it and for what purposes? (Hammett 1999; Harris 1997; Sorapure et al. 1998)

Teaching Resources

Cowles (1997) offers a set of lesson plans and activities that are especially suitable for use with adults: (1) Navigating around a Webpage; (2) Is It Fools' Gold or the Real Thing?; (3) Using E-mail; and (4) Searching for Information. Among the activities is a health information lesson that presents learners with a health problem scenario and has them research and assess the variety of answers to health questions that may be found on the Web. Cowles and others (Labaree 1998; Morrison, Kim, and Kydd 1998) suggest that problem-based or project-based learning such as this embeds skill development in a context of real-life interest to learners. Cowles also advises using specific, guided lessons rather than wide-ranging searches and teaching evaluation *before* teaching searching because it can help learners sharpen the focus of a search and prevent them being overwhelmed by massive results.

The following sources provide detailed checklists for teaching information source evaluation: Alexander and Tate (1999), Ferrell (1997), Hammett (1999), Harris (1997), Kirk (1999), Stellin (1996), and Williams (1998). A number of reputable sites have useful consumer guides to the Web. National Institute for Consumer Education (1996) provides a mini-lesson on fraud on the Internet. The Federal Trade Commission presents *Site Seeing on the Internet: A Consumer's Guide to Traveling in Cyberspace* <http://www.ftc.gov/bcp/conline/pubs/online/sitesee/index.html>. The U.S. Department of Health and Human Services sponsors http://www.healthfinder.gov, which addresses how to evaluate various types of online health information. The National Fraud Information Center (1999a) includes basic Internet tips and an "Internet Fraud Watch" of scams reported to them by consumers. The Better Business Bureau <http://www.bbbonline.com> gives safe surfing tips and has a program for awarding website reliability seals, an indicator that a site's content has been evaluated and determined to be trustworthy.

The combination of critical literacy and consumer education can empower individuals to use the Internet confidently and intelligently. However, it should not be forgotten that there are still information sources—and their associated pitfalls and dangers—offline as well. In the Information Age, critical thinking skills are vital in both the "real" as well as the "virtual" world.

References

Alexander, J. E., and Tate, M. A. ***Evaluating Web Resources.*** 1999. <http://www2.widener.edu/Wolfgram-Memorial-Library/webeval.htm>

Alexander, J. E.; Powell, M.; and Tate, M. A. ***A Modular Approach to Teaching/Learning the World Wide Web.*** 1999. <http://www2.widener.edu/Wolfgram-Memorial-Library/pyramid.htm>

Cooke, A.; McNab, A.; and Anagnostelis, B. "The Good, the Bad, and the Ugly: Internet Review Sites." In ***Online Information 96***, edited by D.I. Raitt and B. Jeapes. Oxford, England: Learned Information Europe, Ltd., 1996. (ED 411 810)

Cowles, S. ***Teaching and Learning with Internet-based Resources: a Set of Lesson Plans and Activities.*** Washington, DC: National Institute for Literacy, 1997. (ED 425 340) <http://novel.nifl.gov/susanc/inthome.htm>

Dorsey, D. "The People behind the People behind E-commerce." ***Fast Company***, June 1999, pp. 184-198.

Ferrell, K. "Truth, Lies, and the Internet." ***Digital Life.*** San Francisco: CNET, Inc., October 9, 1997. <http://www.cnet.com/Content/Features/Dlife/Truth/>

Fitzgerald, M. A. "Critical Thinking: Tools for Internet Information Evaluation." In ***Information Rich but Knowledge Poor?***, edited by L. Lighthall and K. Haycock. Seattle, WA: International Association of School Librarianship, 1997. (ED 412 944)

Hammett, P. "Teaching Tools for Evaluating World Wide Web Resources." ***Teaching Sociology*** 27, no. 1 (January 1999): 31-37.

Harris, R. "Evaluating Internet Research Sources." 1997. <http://www.sccu.edu/faculty/R_Harris/evalu8it.htm>

Kellner, D. "Multiple Literacies and Critical Pedagogy in a Multicultural Society." ***Educational Theory*** 48, no. 1 (Winter 1998): 103-122. (ERIC No. EJ 563 397)

Kirk, E. E. "Evaluating Information Found on the Internet." Modified June 22, 1999. <http://milton.mse.jhu.edu:8001/research/education/net.html>

Labaree, R. V. "Computer Literacy Empowerment Strategies in a Social Context." American Educational Research Association annual meeting paper, San Diego, CA, April 13-17, 1998. (ED 419 513)

Larkin, M. "Web Health Fraud Monitors Face Formidable Task." ***Lancet*** 354, no. 9173 (July 10, 1999): 168.

Marcovitz, D. M. "I Read It on the Computer, It Must Be True—Evaluating Information from the Web." ***Learning and Leading with Technology*** 25, no. 3 (November 1997): 18-21. (ERIC No. EJ 555 780)

McKenzie, S. "Health on the Internet: A Mixed Blessing." ***Consumer Policy Review*** 9, no. 3 (May-June 1999): 86-91.

Morrison, J. L.; Kim, H.-S.; and Kydd, C. T. "Student Preferences for Cybersearch Strategies: Impact on Critical Evaluation of Sources." ***Journal of Education for Business*** 73, no. 5 (May-June 1998): 264-268. (ERIC No. EJ 565 929)

National Fraud Information Center. ***Basic Internet Tips.*** Washington, DC: National Consumers League, 1999a. <http://www.fraud.org/internet/inttip/basint.htm>

National Fraud Information Center. "Going Once, Going Twice...Scammed!" Internet Fraud Watch, February 23, 1999b. <http://www.fraud.org/internet/9923stat.htm>

National Institute for Consumer Education. ***Fraud on the Internet.*** Ypsilanti: NICE, Eastern Michigan University, 1996. <http://www.emich.edu/public/coe/nice/nice.html>

Ronau, R. N.; Ryan, S.; and Stroble, B. "Searching the Web: New Tools—New Dilemmas." ***Internet and Higher Education*** 1, no. 4 (1998): 253-262.

Schwartz, D. G. "Mozart versus Minsky." ***Internet Research*** 7, no. 4 (1997): 263-268. (EJ 561 519)

Sorapure, M.; Inglesby, P.; and Yatchisin, G. "Web Literacy." ***Computers and Composition*** 15, no. 3 (1998): 409-424.

Stellin, S. "Can You Trust Your Search Engine?" 1996. <http://www.cnet.com/Content/Features/Dlife/Search/>

Tillman, H. N. "Evaluating Quality on the Net." 1998. <http://www.tiac.net/users/hope/findqual.htm>

Watson, J. S. "'If You Don't Have It, You Can't Find It.'" ***Journal of the American Society for Information Science*** 49, no. 11 (September 1998): 1024-1036.

Williams, M. "Seduced and Abandoned on the Web." ***Book Report*** 17, no. 2 (September-October 1998): 8-10, 36.

This project has been funded at least in part with Federal funds from the U.S. Department of Education under Contract No. ED-99-CO-0013. The content of this publication does not necessarily reflect the views or policies of the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government. ***Practice Application Briefs*** may be freely reproduced and are available at <http://ericacve.org/fulltext.asp>.

CENTER ON EDUCATION AND TRAINING FOR EMPLOYMENT
COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY
1900 Kenny Road · Columbus, Ohio 43210-1090